AMENDMENT under 37 C.F.R. § 1.114
U.S. Appln. No. 09/750,386

CLAIM AMENDMENTS:

1. (Currently amended) A portable communication device comprising:

an analog-to-digital converter to provide a digital output signal;

a signal generator coupled to the digital output signal to generate a feedback signal; ~~and~~ wherein the portable communication device is adapted to subtract the feedback signal from an intermediate frequency (IF) signal; and

a multiplier to extract an in-phase part of the IF signal after subtraction of the feedback signal.

2. (Currently amended) The portable communication device of claim 1, further comprising a filter adapted to provide a filtered signal with a bandwidth to the multiplier, wherein the signal generator generates a feedback signal that reduces the difference between the IF signal and the feedback signal over at least a portion of the bandwidth of the filtered signal.

3. (Original) The portable communication device of claim 2, wherein the portable communication device is adapted to change the digital output signal to reduce the difference between the IF signal and the feedback signal.

4. (Currently amended) The portable communication device of claim 2, further comprising ~~a multiplier coupled to~~ an integrator, ~~wherein~~ coupled to the multiplier ~~is~~ and

adapted to ~~multiply a local oscillator signal and the filtered signal~~ perform spectral shaping of the extracted signal.

5. (Original) The portable communication device of claim 1, wherein the signal generator comprises a modulator.

6. (Original) The portable communication device of claim 5, wherein the signal generator comprises an amplitude shift key modulator.

7. (Original) The portable communication device of claim 5, further comprising a local oscillator coupled to the modulator.

8. (Original) The portable communication device of claim 7, wherein the digital output signal consists of a bit coupled to the signal generator such that the signal generator generates a feed back signal that is either in-phase with the local oscillator or about 180° out of phase with the local oscillator.

9. (Original) The portable communication device of claim 7, wherein the digital output signal comprises at least two bits.

10. (Original) The portable communication device of claim 1, wherein the portable communication device is adapted to receive an input signal and the digital output signal represents an over-sampled version of the input signal.

11. (Currently amended) An apparatus comprising:

a subtractor adapted to subtract a feedback signal from an intermediate frequency (IF) signal to provide a subtracted signal;

a multiplier to isolate a portion of the subtracted signal having encoded information; and

a signal generator to provide the feedback signal determined, at least in part, on the isolated portion of the subtracted signal.

12. (Original) The apparatus of claim 11, further comprising an integrator coupled to receive the subtracted signal.

13. (Currently amended) The apparatus of claim 11, further comprising ~~a multiplier to multiply the subtracted signal with a signal from~~ an oscillator coupled to the multiplier.

14. (Original) The apparatus of claim 11, further comprising an analog-to-digital converter to provide a digital output signal, wherein the feedback signal is determined, at least in part, on the digital output signal.

15. (Original) The apparatus of claim 11, wherein the signal generator comprises a modulator.

16. (Original) The apparatus of claim 15, wherein the modulator is coupled to a local oscillator.

17. (Original) The apparatus of claim 11, further comprising an antenna adapted to receive a radio frequency (RF) signal.

18. (Original) The apparatus of claim 17, wherein the RF signal is the IF signal.

19. (Currently amended) A method comprising:

receiving an input intermediate frequency (IF) signal and generating a quantized signal determined, at least in part, on the input IF signal; ~~and~~

subtracting a feedback signal from the input IF signal to provide a subtracted signal; and

multiplying the subtracted signal by an oscillator signal to generate a baseband signal for quantization.

20. (Original) The method of claim 19, further comprising generating the feedback signal with the quantized signal.

21. (Currently amended) The method of claim 20, wherein generating a quantized signal includes converting ~~a signal~~ at least a portion of the base band signal with an analog-to-digital converter to provide a digital output signal.

22. (Original) The method of claim 21, further comprising modulating the digital output signal to provide the feedback signal.

23. (Original) The method of claim 19, further comprising integrating the subtracted signal.

24. (Cancelled)

25. (Currently amended) An article comprising: a storage medium having stored thereon instructions, that, when executed by a computing platform, result in:

receiving an input intermediate frequency (IF) signal and generating a quantized signal determined, at least in part, on the input IF signal; ~~and~~

subtracting a feedback signal from the input IF signal to provide a subtracted signal; and

extracting an in-phase portion of the subtracted signal for quantization.

26. (Currently amended) The article of claim 25, wherein the instructions, when executed, further result in converting a at least a portion of the extracted signal with an analog-to-digital converter to provide a digital output signal.

27. (Original) The article of claim 25, wherein the instructions, when executed, further result in integrating the subtracted signal.